

Name: _____

Date: _____

Do Now:

You may work with a partner to answer the following questions.

Exercise #1: Use the technique of cross multiplication to solve each of the following equations.

(a) $\frac{4x+5}{2} = \frac{x-1}{5}$

(b) $\frac{x+1}{2-x} = \frac{2}{x-6}$

Exercise #2: Solve for x

$$\frac{1}{2} - \frac{9}{4x} = \frac{3}{4x}$$

Exercise #3: Which of the following values of x solves: $\frac{x-4}{6} + \frac{x-2}{10} = \frac{31}{15}$?

(1) $x = 14$

(3) $x = -8$

(2) $x = 6$

(4) $x = 11$

Practice: Solve and remember to reject any extraneous roots

$$1) \quad \frac{4}{x^2 + 4x - 12} + \frac{x-1}{x+6} = \frac{1}{x-2}$$

$$2) \quad \frac{x+1}{x-5} + \frac{2}{x-6} = \frac{2}{x^2 - 11x + 30}$$

$$3) \quad \frac{5}{x+2} + \frac{1}{2} = 3$$

$$4) \quad x - 8 = -\frac{12}{x}$$

$$5) \quad \frac{x-3}{x-7} - \frac{1}{x} = \frac{28}{x^2 - 7x}$$

$$6) \quad \frac{x+1}{x+5} + \frac{18}{x^2 + 8x + 15} = \frac{9}{x+3}$$

